

What is Claimed is:

1. A chromatic coloring agent for multicolor laser marking, which is for forming two or more markings having different color tones by irradiating two or more laser beams having different energy levels onto a molded article comprising said chromatic coloring agent, a black substance which is itself depleted or discolored by receiving a laser beam, and a polymer, being characterized in that said chromatic coloring agent has an exothermic peak in the range of 360°C or higher and 590°C or lower, as measured by differential thermal analysis.

2. The chromatic coloring agent for multicolor laser marking according to Claim 1, wherein said chromatic coloring agent comprises at least one type of backbone selected from the group consisting of a phthalocyanine backbone, a diketopyrrolopyrrole backbone, a dioxazine backbone, a quinacridone backbone, a quinophthalone backbone, a perylene backbone and a metal complex backbone.

3. A composition for multicolor laser marking, which is for forming markings having two or more different color tones by irradiation of two or more laser beams having different energy levels,

being characterized in comprising a chromatic coloring agent, a black substance which is itself depleted or discolored by receiving a laser beam, and a polymer;

wherein content of said chromatic coloring agent is from 0.001 to 3 parts by mass with respect to 100 parts by mass of said polymer; and

wherein content of said black substance is from 0.01 to 2 parts by mass with respect to 100 parts by mass of said polymer.

4. The composition for multicolor laser marking according to Claim 3, wherein said chromatic coloring agent has an exothermic peak in the range of 360°C or higher and 590°C or lower, as measured by differential thermal analysis.

5. The composition for multicolor laser marking according to Claim 4, wherein said chromatic coloring agent comprises at least one type of backbone selected from the group consisting of a phthalocyanine backbone, a diketopyrrolopyrrole backbone, a dioxazine backbone, a quinacridone backbone, a quinophthalone backbone, a perylene backbone and a metal complex backbone.

6. The composition for multicolor laser marking according to Claim 3, wherein said polymer comprises a rubber-reinforced thermoplastic resin composed of a rubber-reinforced copolymerized resin obtained by polymerizing a vinyl-based monomer containing a (meth)acrylic acid ester in the presence of a rubbery polymer; or of a mixture of said rubber-reinforced copolymerized resin and a (co)polymer of a vinyl-based monomer.

7. The composition for multicolor laser marking according to Claim 3, wherein said polymer comprises a thermoplastic polymer and a thermosetting polymer, and wherein content of said thermoplastic polymer is from 0.01 to

20 parts by mass with respect to 100 parts by mass of said thermoplastic polymer.

8. The composition for multicolor laser marking according to Claim 3, wherein said black substance is at least one type selected from the group consisting of carbon black, black titanium oxide and black iron oxide.

9. The composition for multicolor laser marking according to Claim 3, further comprising at least one type of functionality-imparting agent selected from the group consisting of a flame retardant, an antistatic agent, an antimicrobial agent, a filler and a metallic pigment, and

wherein content of said flame retardant is from 1 to 30 parts by mass, content of said antistatic agent is from 0.5 to 10 parts by mass, content of said antimicrobial agent is from 0.01 to 10 parts by mass, content of said filler is from 1 to 30 parts by mass and content of said metallic pigment is from 0.1 to 10 parts by mass, with respect to 100 parts by mass of said polymer.

10. A molded article being characterized in comprising said composition for multicolor laser marking according to Claim 3.

11. A molded article being characterized in comprising said composition for multicolor laser marking according to Claim 6.

12. A molded article being characterized in comprising said composition for multicolor laser marking according to Claim 7.

13. A molded article being characterized in comprising said composition for multicolor laser marking according to Claim 9.

14. A laser marking method being characterized in comprising, irradiating the molded article according to Claim 10 with two or more laser beams having different energy levels to form markings having two or more different color tones.

15. The laser marking method according to Claim 14, wherein the difference between wavelength of low-energy laser beam and wavelength of high-energy laser beam is 100 nm or more.

16. The laser marking method according to Claim 15, wherein said wavelength of low-energy laser beam is 1,064 nm, and said wavelength of high-energy laser beam is 532 nm.

17. A multicolor-marked molded article whereby two or more laser beams having different energy levels were irradiated onto the molded article according to Claim 10 to form markings having two or more different color tones.

18. The multicolor-marked molded article according to Claim 17, wherein a plurality of colors that includes white and a chromatic color were developed by laser marking.

19. The multicolor-marked molded article according to Claim 18, wherein at least one place of the marked portion is foamed.